

PATENT ABSTRACTS OF JAPAN

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(11)Publication number : **07-115743**
 (43)Date of publication of application : **02.05.1995**

(51)Int.CI.

H02K 3/04
 H02K 19/36

(21)Application number : **05-258021**

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(22)Date of filing : **15.10.1993**

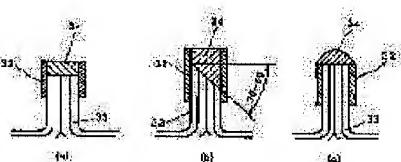
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(54) STATOR OF AC GENERATOR FOR VEHICLE

(57)Abstract:

PURPOSE: To make it possible to join neutral-point ends together without coming off the coating of coils, by cutting neutral point drawn-out ends gathered in one place, and burying a different kind of metal with good conductivity in a recessed part made up of a cut face of the neutral-point ends and a bundling member.

CONSTITUTION: After neutral points 33 of three phase lines are wired on an end coil without coming off the coating thereof, each neutral end point 33 is gathered in one place and trimmed and fixed with a bundling member 32. The cut faces of the neutral points 33 are fixed in a recessed part that is extended from the end face of the bundling member 32. Then, a different kind of metal 34 with good conductivity is buried in the recessed part so that the cut face of the coil and the different kind of metal 34 are connected. In this way, a simple step in work is realized at low-cost.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] Especially this invention relates to neutral point combination of the armature coil of a three-phase-alternating-current generator about the stator of the AC generator for vehicles.

[0002]

[Description of the Prior Art] The star connection of stator ***** of the conventional AC generator for vehicles is common, and structure is shown for connection of the neutral point in JP,63-299754,A.

[0003] After the neutral point exfoliates the fraction with which the point of a coil is combined first, after being about in a position, it fixes to the end coil section axis end of the stator coil protruded into shaft orientations from a stator core using a direct or convergence member, and it is combined with it by soldering work. Therefore, the coil for the bond part to solder had the trouble where it was necessary to surely exfoliate completely. Moreover, when or it soldered, a carbonization degradation of the insulating coat of an armature coil used for the AC generator for vehicles also by the case is intense, and the coil needed to exfoliate. [**]

[0004]

[Problem(s) to be Solved by the Invention] In the stator of the conventional AC generator for vehicles constituted as mentioned above, when sublation of an insulating coat was surely required for the coil point of the fraction connected although the derivation edge by the side of the neutral point of each phase can be about on the periphery of an armature core, it is brought together in one place and it is combined after that since the insulating coat of the coil is carried out, and since joint work is soldering work, it had a problem.

[0005] this invention aims at raising workability sharply by performing combination of the neutral point, without exfoliating a coil.

[0006]

[Means for Solving the Problem] The stator of the AC generator for vehicles concerning this invention brings together derivation one end by the side of the neutral point of each phase in one place. It fixes so that only a certain distance may be hollowed the cut surface of a neutral point side derivation coil which collected these previously by the converging convergence member after cutting and arranging a nose of cam from the end face of a convergence member. And the dissimilar metal excellent in conductivity is embedded into the fraction hollowed the account of a top, and between neutral point derivation coils was connected through this dissimilar metal.

[0007]

[Function] The neutral point side derivation edge of the electrical machinery paper coil of each phase is brought together in one on an end coil, and the stator of the AC generator for vehicles in this invention is fixed using a convergence member.

[0008] The above-mentioned neutral point side derivation edge cuts in order to arrange the collected front-and-rear edge, and it is fixed to the position only a certain distance hollowed [position] the cut surface from the end face of the above-mentioned convergence terminal, and the cut surface of each neutral point side derivation coil is certainly combined through the dissimilar metal embedded further in this impression.

[0009]

[Example] Drawing 1 explains the example of this invention.

[0010] The brackets 1 and 2 of the couple which makes a generator outline in drawing 1 are being fixed with the bolt with which a plurality is not illustrated through the stator core 4 which loops around the stator coil 3 of a three phase. Near the side face center of both the brackets 1 and 2, the bearing housing of the shape of a cylinder which projects inside a generator is formed, bearings 6 and 7 are attached in each bearing housing, and a shaft 8 is supported by such bearings 6 and 7 free rotation].

[0011] A minute opening is maintained at the inner circumference side of a stator core, and the rotor core 9 of the couple which has even presser-foot-stitch-tongue type magnetic poles each ****s a field coil 10 to the interior, and is being fixed to the shaft 8. The pulley 5 is being fixed at the nose of cam of a shaft. Moreover, fan 11b is being fixed to each side face of the rotor core 9 of a couple, and each fans' 11a and 11b axis end has countered through a proper gap to the inside side face of brackets 1 and 2.

[0012] The slip ring 12 is fixed on the same axle of a shaft 8, and the brush 13 is ****ing on the ring.

[0013] Moreover, the ***** fire 20 which carries out full wave rectification of the output current of the regulator 14 which

controls output voltage uniformly, and the stator coil 3 is mostly arranged on the same side, and is attached inside the rear cover 2.

[0014] The stator has projected the stator-coil output line 31 at the place close to the terminal 24 currently laid under the diode base which is not illustrated.

[0015] The neutral point 33 is about in one on an end coil, and are collected, and connection fixation is carried out at shaft orientations using the convergence member 32.

[0016] An operation of the generator by the above-mentioned configuration is explained below. If driving force is transmitted to a pulley 5 with the engine which is not illustrated at the same time field current flows to a field coil 10 through a brush 13 and the slip ring 12, the rotating magnetic field will occur to the rotor core 9. When this rotating magnetic field cross a stator coil 3, electromagnetic induction of the stator coil 3 is carried out, and alternating voltage occurs. Full wave rectification of the alternating current output generated in the stator coil 3 is flowed in and carried out to the ***** fire 20 through the stator-coil output line 31, and it is changed into a direct-current output. At this time, since the output voltage of a generator changes with rotational frequencies, by the regulator 14, it flows through field current suitably, it is intercepted, and a generated voltage is controlled uniformly. Moreover, since the contact surface of the dissimilar metal embedded in the impression of a convergence member by leaning and cutting a coil cut surface at about 30-60 degrees to the end face of a convergence member and a coil increases, while connection can carry out to an authenticity more, the exoergic increase by the resistance for a bond part can be suppressed. Moreover, there is also a merit that it can work, without changing the fixing force on which it converged in the case of [at the time of joint work] by using a dissimilar metal and a material higher than the melting point of an armature coil for the material of a convergence member.

[0017] An above-mentioned configuration and the connection method of the neutral point of the three phase star type connection type generator by operation are explained below. The neutral point coil of each phase crawls on a coil top about, without exfoliating a nose of cam, and is brought together in one place. The collected neutral point coil is cut in order to arrange a nose of cam, and it is fixed after that using a convergence member. In that case, it is fixed in the place when the cut surface of a neutral point coil hollowed only a certain distance from the end face of the above-mentioned convergence member, and a coil cut surface and a dissimilar metal are certainly connected by embedding a conductive good dissimilar metal in this impression.

[0018] Since the stator neutral point can connect a coil coat certainly like according to this invention, without [which was described above] exfoliating, the neutral point section can abolish the coil sublation which had become the neck conventionally.

[0019]

[Effect of the Invention] Since according to this invention it is certainly combinable even if it does not exfoliate a coil nose of cam, the large cost reduction is possible by simplification of work, and the man day reduction.

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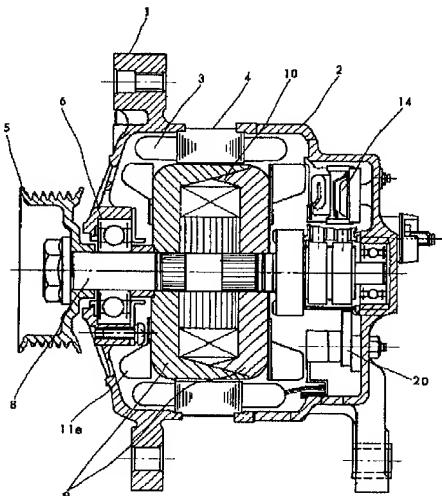
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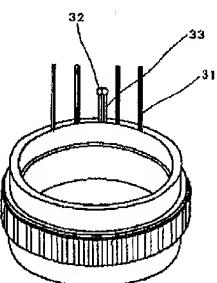
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DRAWINGS

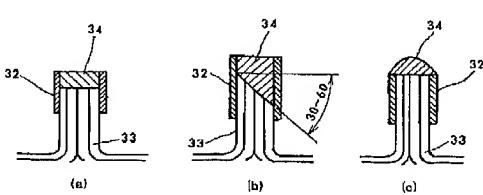
[Drawing 1] 



[Drawing 2] 



[Drawing 3] 



[Translation done.]